

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended): An electrical deionization apparatus having comprising: deionization compartments, concentration compartments and electrode compartments partitioned from one another by a plurality of ion exchange membranes between a cathode and an anode,

wherein in at least one compartment out of the deionization compartments, the concentration compartments and the electrode compartments, at least one of an anion exchange fibrous material and a cation exchange fibrous material is disposed in layers on one another intersecting a water-passing direction.

2. (Original): The electrical deionization apparatus according to claim 1, wherein in at least one compartment out of the deionization compartments and the concentration compartments, an anion exchange fibrous material disposed in layers in that compartment and an anion exchange membrane demarcating that compartment are disposed such as to contact one another, and/or a cation exchange fibrous material disposed in layers in that compartment and a cation exchange membrane demarcating that compartment are disposed such as to contact one another.

3. (Original): The electrical deionization apparatus according to claim 1, wherein in at least one compartment out of the deionization compartments and the concentration compartments, at least one of the anion exchange fibrous material disposed in layers in that compartment and the cation exchange fibrous material disposed in layers in that compartment is disposed such as to contact both an anion exchange membrane and a cation exchange membrane demarcating that compartment.

4. (Original): The electrical deionization apparatus according to claim 1, wherein in at least one compartment out of the deionization compartments and the concentration compartments, an anion exchange fibrous material is disposed running along the surface of an anion exchange membrane, and/or a cation exchange fibrous material is disposed running along the surface of a cation exchange membrane.

5. (Previously Presented): The electrical deionization apparatus according to any of claims 1 through 4, wherein in at least one compartment out of the deionization compartments and the concentration compartments, the anion exchange fibrous material and the cation exchange fibrous material are disposed alternately in a plurality of layers on one another intersecting the water-passing direction.

6. (Currently Amended): The electrical deionization apparatus according to any of claims 1 through [[5]] 4, wherein in a cathode compartment, an anion exchange fibrous material is disposed in layers on one another intersecting the water-passing direction.

7. (Original): The electrical deionization apparatus according to claim 6, wherein the anion exchange fibrous material is disposed such as to contact at least one of an anion exchange membrane and a cathode demarcating the cathode compartment.

8. (Original): The electrical deionization apparatus according to claim 6, wherein the anion exchange fibrous material is disposed such as to contact both of an anion exchange membrane and a cathode demarcating the cathode compartment.

9. (Original): The electrical deionization apparatus according to claim 6, wherein in the cathode compartment, an anion exchange fibrous material is disposed running along the surface of an anion exchange membrane and/or a cathode demarcating the cathode compartment.

10. (Currently Amended): The electrical deionization apparatus according to any of claims 1 through [[9]] 4, wherein each of the anion exchange fibrous material and the cation exchange fibrous material is a woven fabric or nonwoven fabric material.

11. (Currently Amended): The electrical deionization apparatus according to any of claims 1 through [[9]] 4, wherein at least one of the anion exchange fibrous material and the cation exchange fibrous material is a material obtained by introducing ion exchange groups onto a substrate using radiation-induced graft polymerization.

12. (Currently Amended): An electrical deionization apparatus having comprising: deionization compartments, concentration compartments and electrode compartments partitioned from one another by a plurality of ion exchange membranes between a cathode and an anode,

wherein, in at least one compartment out of the deionization compartments, the concentration compartments and the electrode compartments, a water-permeable porous material that has been given an ion exchange function is disposed in layers on one another intersecting the direction of flow of passing water.

13. (Currently Amended): An electrical deionization apparatus having comprising:

deionization compartments, concentration compartments and electrode compartments partitioned from one another by a plurality of ion exchange membranes between a cathode and an anode,

wherein, in at least one compartment out of the deionization compartments, the concentration compartments and the electrode compartments, a pleated ion exchange fibrous material structure formed by placing a long sheet-shaped anion exchange fibrous material and a long sheet-shaped cation exchange fibrous material on one another and folding the resulting structure in accordance with the dimensions of the compartment is packed into the compartment such that surfaces of the pleats intersect a water-passing direction, and moreover the two end sections of the structure contact respectively a cation exchange membrane and an anion exchange membrane demarcating the compartment.

14. (Currently Amended): An electrical deionization apparatus having comprising: deionization compartments, concentration compartments and electrode compartments partitioned from one another by a plurality of ion exchange membranes between a cathode and an anode,

wherein, in at least one compartment out of the deionization compartments, the concentration compartments and the electrode compartments, a rolled structure formed by placing a long sheet-shaped anion exchange fibrous material and a long sheet-shaped cation exchange fibrous material on one another and rolling up the resulting structure is packed into the compartment such that the two end sections of the structure contact respectively a cation exchange membrane and an anion exchange membrane demarcating the compartment.

15. (New): An electrical deionization apparatus comprising:

deionization compartments, concentration compartments and electrode compartments partitioned from one another by a plurality of ion exchange members between a cathode and an anode,

wherein, in at least the deionization compartments, one or more sheet-shaped anion exchange fibrous materials and one or more sheet-shaped cation exchange fibrous materials are disposed on one another intersecting a water-passing direction such that they come into contact with both of an anion exchange membrane and a cation exchange membrane demarcating the deionization compartment.

16. (New): The electrical deionization apparatus according to Claim 15, wherein one or more sheet-shaped anion exchange fibrous materials and one or more sheet-shaped cation exchange fibrous materials are disposed on one another alternately intersecting a water-passing direction.

17. (New): The electrical deionization apparatus according to Claim 15, wherein one or more sheet-shaped anion exchange fibrous materials and one or more sheet-shaped cation exchange fibrous material come into contact with each other.

18. (New): The electrical deionization apparatus according to Claim 15, further comprising a sheet-shaped anion exchange fibrous material disposed running alone a surface of the anion exchange membrane and/or a sheet-shaped cation exchange fibrous material disposed running along a surface of the cation exchange membrane.

19. (New): The electrical deionization apparatus according to Claim 15, wherein in the concentration compartments and/or electrode compartments, one or more sheet-shaped

anion exchange fibrous materials and one or more sheet-shaped cation exchange fibrous materials are disposed on one another intersecting a water-passing direction such that they come into contact with both of an anion exchange membrane and a cation exchange membrane demarcating the deionization compartment.

20. (New): An electrical deionization apparatus in accordance with Claim 15, wherein at least one of the sheet-shaped anion exchange fibrous material and the sheet-shaped cation exchange fibrous material is a material obtained by introducing an ion exchange group onto a substrate using radiation-induced graft polymerization.

21. (New): An electrical deionization apparatus comprising:  
deionization compartments, concentration compartments and electrode compartments partitioned from one another by a plurality of ion exchange membranes between a cathode and an anode,  
wherein, in at least one compartment out of the deionization compartments, the concentration compartments and the electrode compartments, a pleated ion exchange fibrous material structure formed by placing a long sheet-shaped anion exchange fibrous material and a long sheet-shaped cation fibrous material on one another and folding cation exchange structure in accordance, with the dimensions of the compartment is packed into the compartment such that a surface of the pleated ion exchange fibrous material structure intersects a water-passing direction and the opposite end sections of the pleated ion exchange fibrous material structure respectively come into contact with the cation exchange fibrous membrane and the anion exchange fibrous membrane demarcating the compartment.

22. (New): An electrical deionization apparatus in accordance with Claim 21, wherein at least one of the sheet-shaped anion exchange fibrous material and the sheet-shaped cation exchange fibrous material is a material obtained by introducing an ion exchange group onto a substrate using radiation-induced graft polymerization.

23. (New): An electrical deionization apparatus comprising:  
deionization compartments, concentration compartments and electrode compartments partitioned from one another by a plurality of ion exchange membranes between a cathode and an anode,

wherein, in at least one compartment out of the deionization compartments, the concentration compartments and the electrode compartments, a rolled structure formed by placing a long sheet-shaped anion exchange fibrous material and a long sheet-shaped cation fibrous material on one another and rolling up the resulting structure is packed into the compartment such that the opposite end sections of the structure is packed into the compartment such that the opposite end sections of the rolled structure respectively come into contact with the cation exchange membrane and the anion exchange membrane demarcating the component.

24. (New): An electrical deionization apparatus in accordance with Claim 23, wherein at least, one of the sheet-shaped anion exchange fibrous material and the sheet-shaped cation exchange fibrous material is a material obtained by introducing an ion exchange group onto a substrate using radiation-induced graft polymerization.